

Figure 1.

<u>ZZZ</u> 8 8 22 0 Matrix Plot DELIGEFF BRIGHT : ** RESIDUAL

France 2

Matrix Plot

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Figure 3

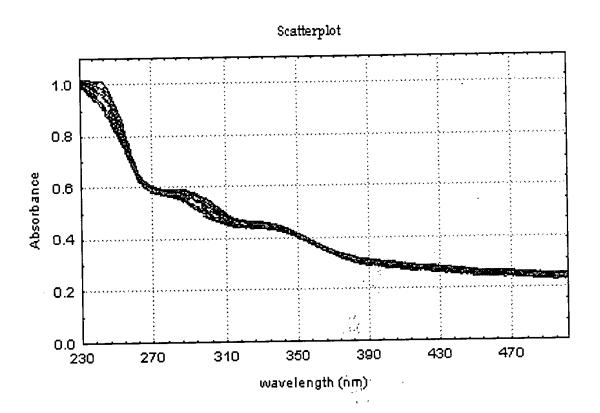


Figure 4

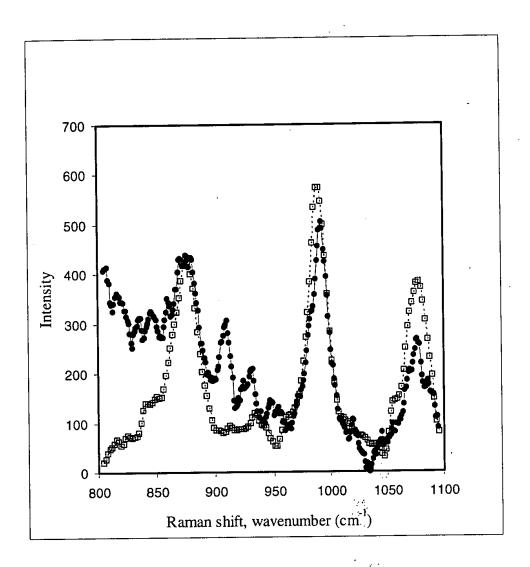
Matrix Plot

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Figure 5

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France 6



- --□-- dispersive system (514.5 nm laser)
- -- **FT** system (1064 nm laser)

Figure 7

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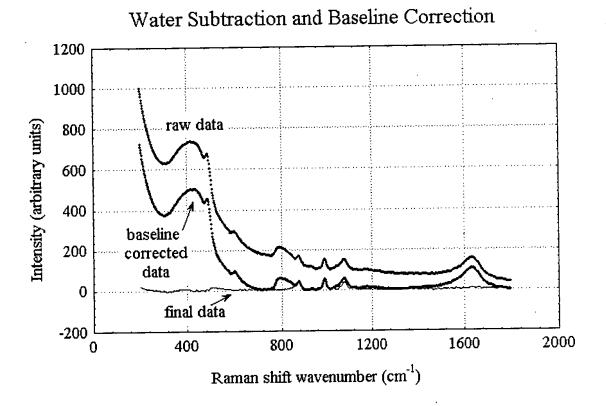


Figure 8

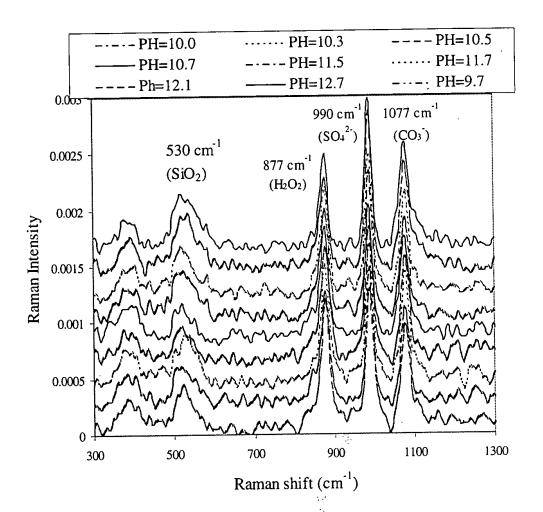


Figure 9

Matrix Plot Aspen TMP Pulp Bleaching with Hydrogen Peroxide Pulp and Bleaching Pressate Properties

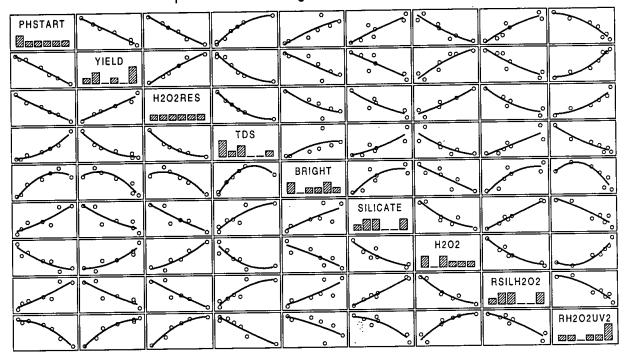


Figure 10

Raman Spectra Hydrogen Peroxide Bleaching of Aspen

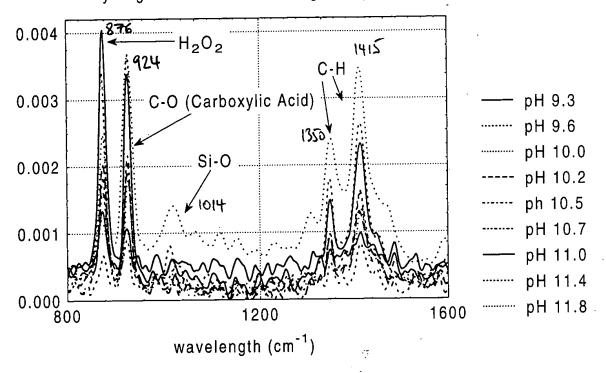


Figure 11

Predicted vs. Observed Values Dependent variable: ISO BRIGHTNESS Independent variables Raman intensities and intensity ratio

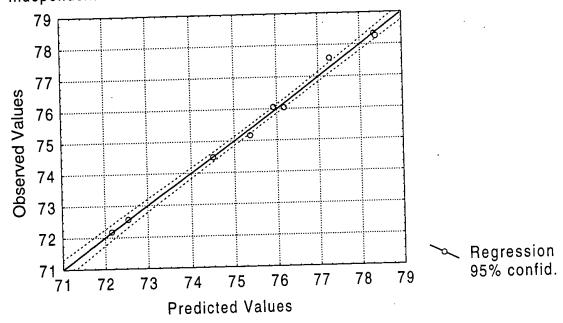


Figure 12

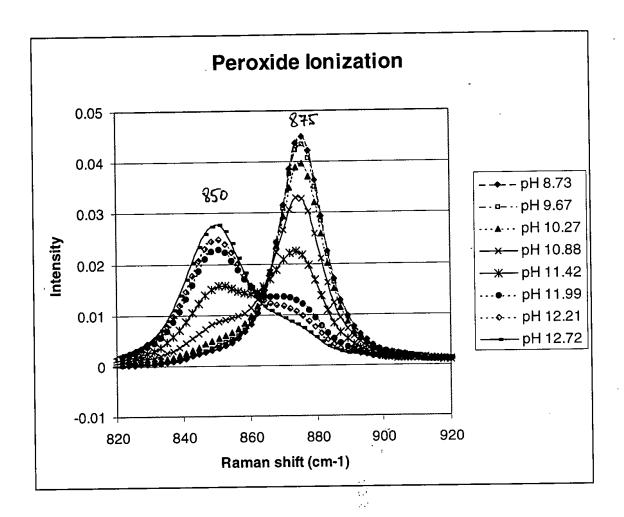
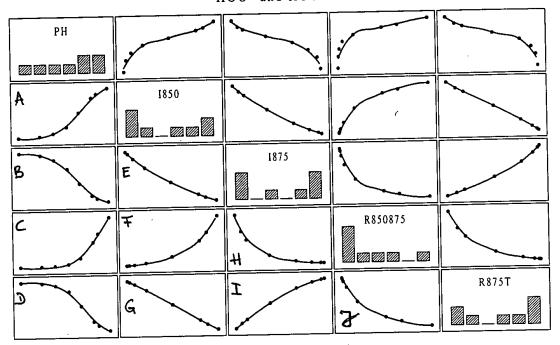


Figure 13

Matrix Plot Raman Intensity Ratios HOO- and HOOH



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Figure 14

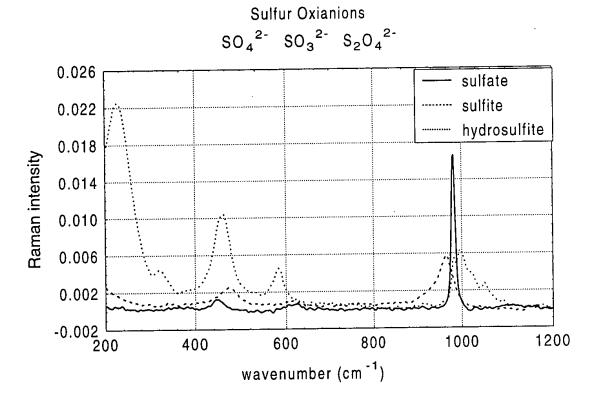


Figure 15

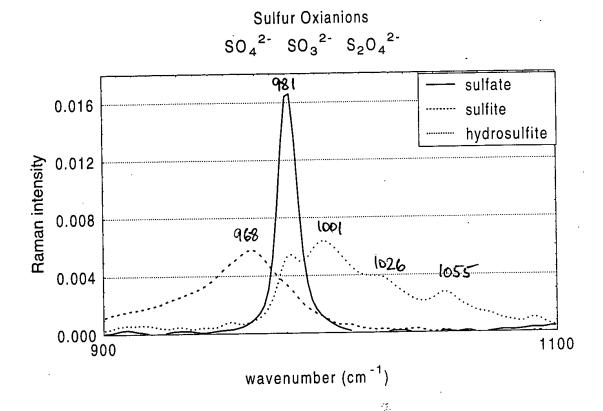


Figure 16

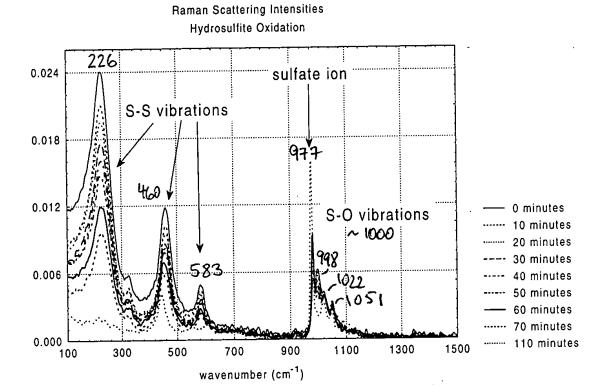


Figure 17

Raman Spectra (S-O stretch) Hydrosulfite Oxidation

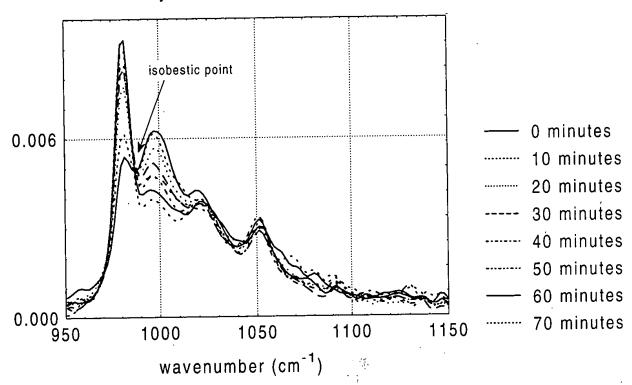


Figure 18

Matrix Plot Hydrosulfite Oxidation Raman Intensities and Ratios with ORP

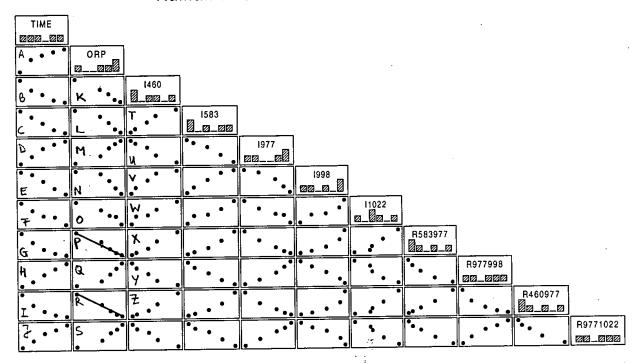


Figure 19

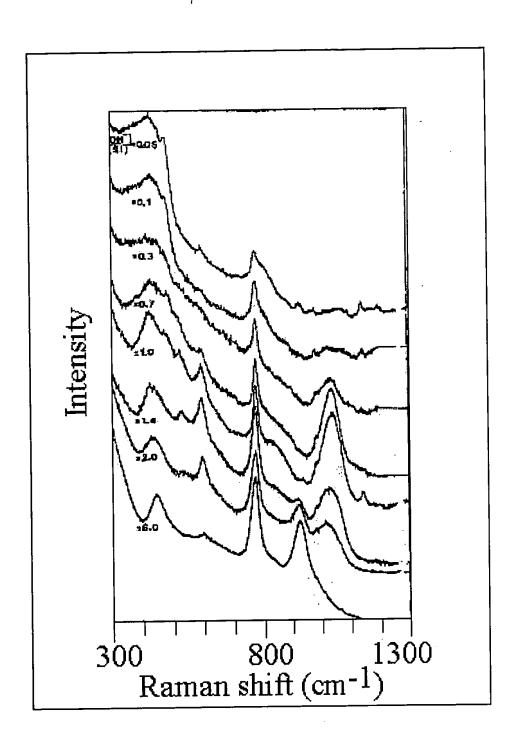


Figure 20

Matrix Plot Raman Data Silicate Peak Intensities vs NaOH Added

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Figure 21

Matrix Plot (Raman Peak Intensities)

Silicate Data

Data Extracted From P.K. Dutta and D.-C. Sheih Applied Spectroscopy 39 (2) 343-6

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Figure 22

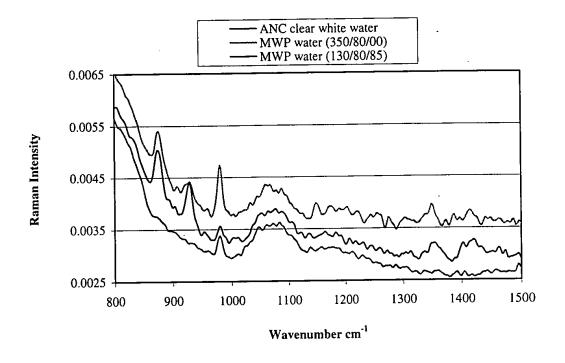


Figure 23

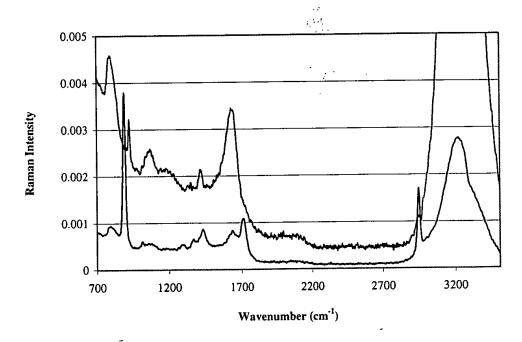


Figure 24